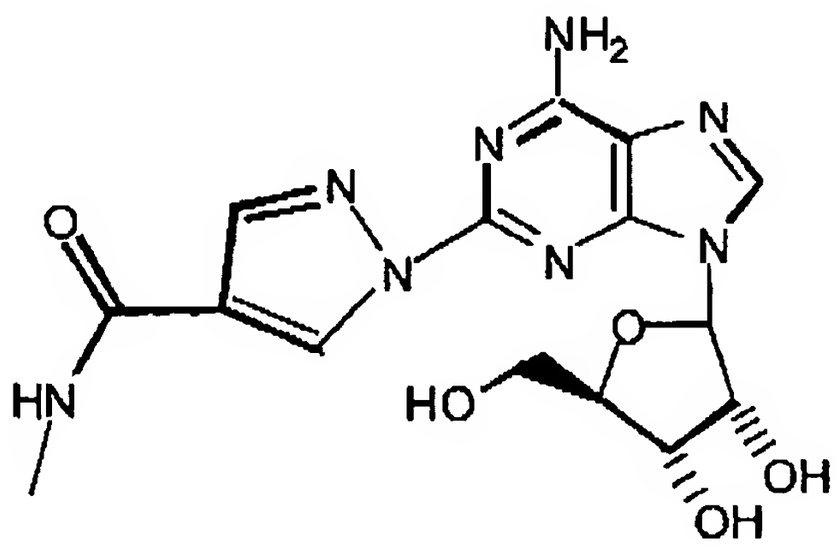
This listing of the claims will replace all prior versions, and listings, of claims in the application. At the request of the examiner, the Applicant has **not** included a clean copy of the amended claims as an Appendix to this Reply.

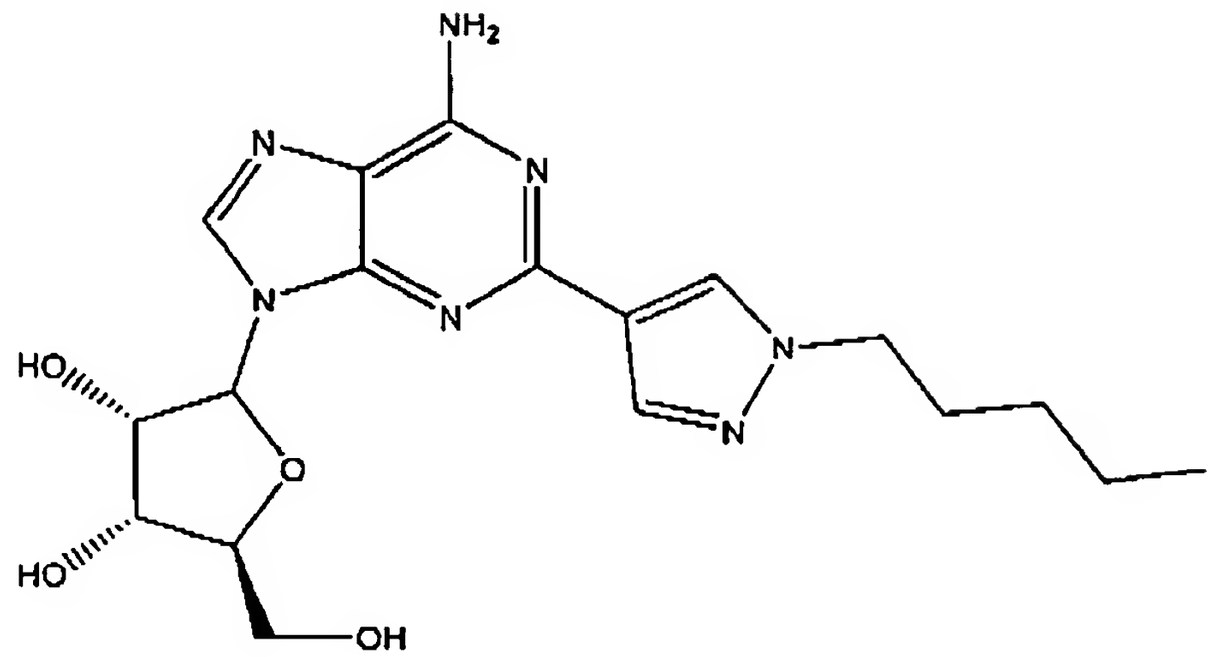
Please cancel claims 5, 16, 19, and 20. With the entry of this response, claims 1-4, 6-15, 17-18, and 21-30 will remain in this case.

LISTING OF THE CLAIMS

1. (Currently amended) A method of producing coronary vasodilation without significant peripheral vasodilation comprising administering by intravenous (iv) bolus at least 10 μg of at least one A_{2A} receptor agonist selected from the group consisting of CVT-3146, named (1-{9-[(4S,2R,3R,5R)-3,4-dihydroxy-5-(hydroxymethyl)oxolan-2-yl]-6-aminopurin-2-yl}pyrazol-4-yl)-N-methylcarboxamide, which has the formula:



CVT-3033, named (4S,2R,3R,5R)-2-[6-amino-2-(1-pentylpyrazol-4-yl)purin-9yl]-5-(hydroxymethyl)oxolane-3,4-diol, which has the formula:



and combinations thereof to a human.

2. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount that does not exceed about 1000 μg.

3. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 10 to about 600 μg.

4. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in a single dose.

5. (Canceled)

6. (Currently amended) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 0.05 to about 60 μg/kg and wherein the A_{2A} receptor agonist is administered by ~~iv~~ intravenous (iv) bolus.

7. (Currently amended) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 0.1 to about 30 μg/kg wherein the A_{2A} receptor agonist is administered by ~~iv~~ intravenous (iv) bolus.

8. (Currently amended) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount no greater than about 20 μg/kg to a supine patient and wherein the A_{2A} receptor agonist is administered by ~~iv~~ intravenous (iv) bolus.

9. (Currently amended) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount no greater than about 10 μg/kg to a standing patient wherein the A_{2A} receptor agonist is administered by ~~iv~~ intravenous (iv) bolus.

10. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 10 to about 600 μg wherein the wherein the A_{2A} receptor agonist is administered in about 20 seconds.

11. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 10 to about 600 μg wherein the A_{2A} receptor agonist is administered in less than about 10 seconds.

12. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount greater than about 100 μg.

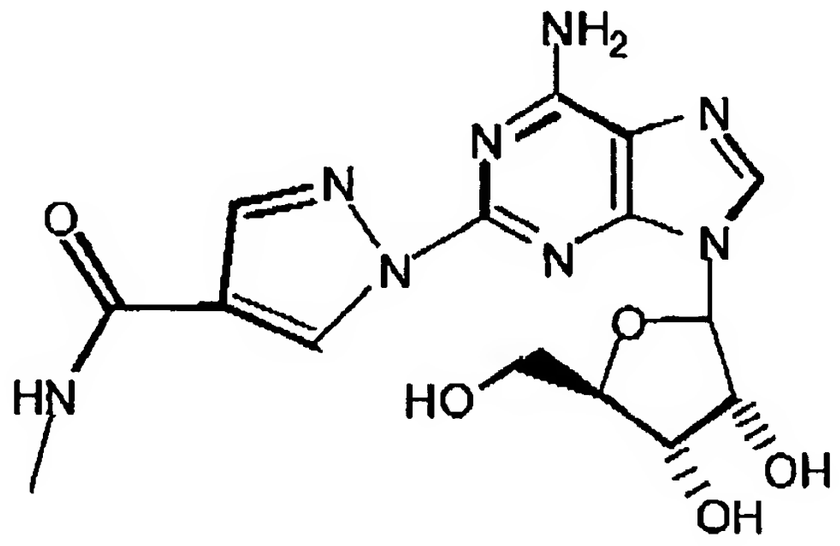
13. (Currently amended) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount no greater than 600 ~~μ~~ μg.

14. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount no greater than 500 μg.

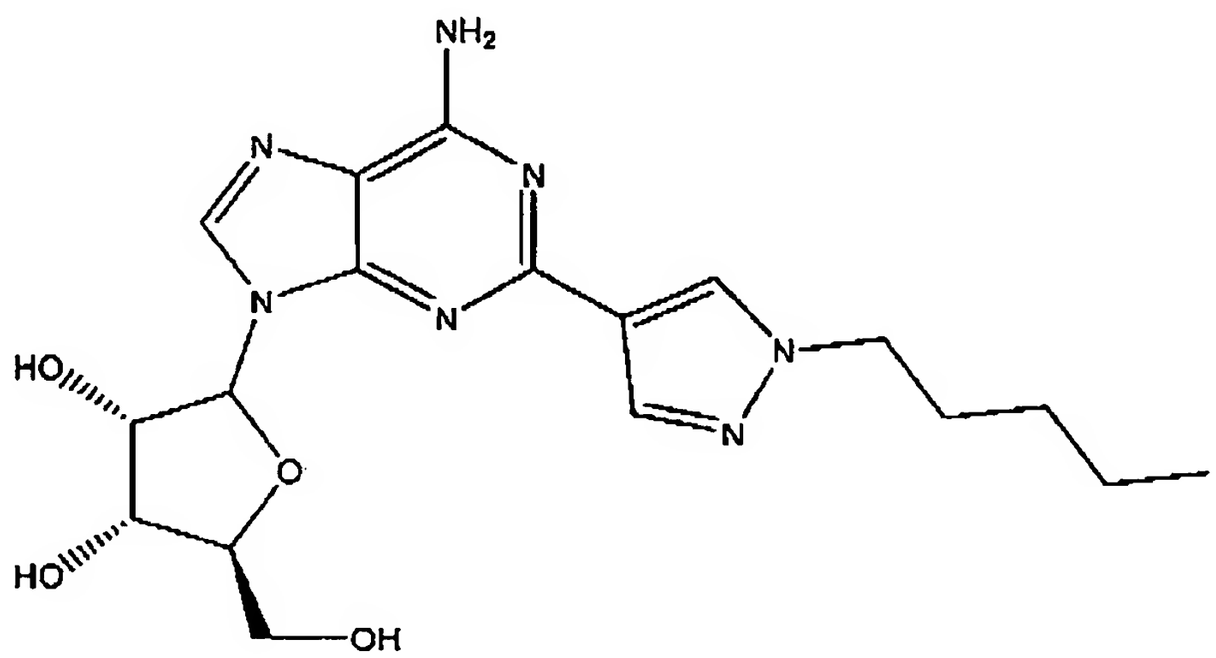
15. (Original) The method of claim 1 wherein the A_{2A} receptor agonist is administered in an amount ranging from about 100 μg to about 500 μg.

16. (Canceled)

17. (Currently amended) A method of myocardial perfusion imaging of a human, comprising administering a radionuclide and a an A_{2A} receptor agonist selected from the group consisting of CVT-3146, named (1-{9-[(4S,2R,3R,5R)-3,4-dihydroxy-5-(hydroxymethyl)oxolan-2-yl]-6-aminopurin-2-yl}pyrazol-4-yl)-N-methylcarboxamide, which has the formula:



CVT-3033, named (4S,2R,3R,5R)-2-[6-amino-2-(1-pentylpyrazol-4-yl)purin-9yl]-5-(hydroxymethyl)oxolane-3,4-diol, which has the formula:



and combinations thereof to the human, wherein the administration of the A_{2A} receptor agonist causes at least a 2.5 fold increase in coronary blood flow that is achieved within about 1 minute from the administration of the A_{2A} receptor agonist, and wherein the myocardium is examined for areas of insufficient blood flow following administration of the radionuclide and the A_{2A} receptor agonist.

18. (Original) The method of claim 17 wherein the myocardium examination begins within about 1 minute from the time the A_{2A} receptor agonist is administered.

19-20. (Canceled)

21. (Original) The method of claim 17 wherein the radionuclide and the A_{2A} receptor agonist are administered separately.

22. (Original) The method of claim 17 wherein the radionuclide and the A_{2A} receptor agonist are administered simultaneously.

23. (Original) The method of claim 17 wherein the administration of the A_{2A} receptor agonist causes at least a 2.5 fold increase in coronary blood flow for less than about 5 minutes.

24. (Original) The method of claim 17 wherein the administration of the A_{2A} receptor agonist causes at least a 2.5 fold increase in coronary blood flow for less than about 3 minutes.

25. (Currently amended) The method of claim 17 wherein the A_{2A} receptor agonist is CVT-3146 which is administered in an amount ranging from about 10 to about 600 μg in a single ~~iv~~ intravenous (iv) bolus.

26. (Currently amended) The method of claim 25 wherein CVT-3146 is administered in an amount ranging from about 100 to about 500 μg in a single ~~iv~~ intravenous (iv) bolus.

27. (Original) The method of claim 17 wherein the a A_{2A} receptor agonist is CVT-3146 which is administered in a single dose in an amount ranging from 10 to about 600 μg that is independent of the weight of the human being dosed.

28. (Original) The method of claim 27 wherein the dose is administered in about 30 seconds or less.

29. (Original) The method of claim 27 wherein the dose is administered in about 20 seconds or less.

30. (Original) The method of claim 17 wherein the A_{2A} receptor agonist is administered in a single dose.